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RESEARCH CONTRACT DAJA 45-92-C-0043
 PRINCIPAL INVESTIGATOR: Dr. A.J.GERRARD
 Item 0002 : Second Interim Report
 30.5.93

The basis of the project has been consolidated prior to the main summer data collection process, although some difficulty has been experienced in obtaining a suitable person to undertake most of the basic field data collection. This problem is now near to being resolved. Field visits to Dartmoor in April (3-10 and 22-26) have confirmed the suitability of the eight rock pavements mentioned in the First Interim Report. It was also mentioned in that report that it was anticipated that more pavements would be identified. This has proved to be the case and several more have been identified. One of these is the famous Slipper Stones location in NW Dartmoor. Although remote, it will be feasible.

It is true that, compared with granite areas in other environments, the Dartmoor area provides few large rock pavements. However, it is hoped that by establishing sufficient fractal dimensions and by comparing these with the fractal dimensions derived from line transect data (which offers greater scope) one can be used as a surrogate for the other. Also, fractal dimensions of landscape components, topography, surface roughness, drainage distribution, may also provide an insight into the fractal dimensions of the fractures within the granite. There is also the intriguing possibility that distribution of feldspar megacrysts in the granite is also fractal and related to the jointing. If this is so this will be breaking new ground and will be a major discovery and innovation.

As part of the project an extensive literature review of the use of fractals in the Earth Sciences has been conducted. This has confirmed the paucity of information on fractals and fracture spacing and reinforces the special nature of this project.

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